

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES COMPANY)	
FOR A CERTIFICATE OF CONVENIENCE AND)	
NECESSITY AND A CERTIFICATE OF ENVIRONMENTAL)	
COMPATIBILITY TO CONSTRUCT FOUR 75 MEGAWATT)	
COMBUSTION TURBINE PEAKING UNITS AND)	
ASSOCIATED FACILITIES SCHEDULED FOR)	CASE NO. 91-115
COMPLETION IN 1994 AND 1995, RESPECTIVELY,)	
TO BE LOCATED AT THE COMPANY'S E. W. BROWN)	
GENERATING STATION IN MERCER COUNTY,)	
KENTUCKY)	

I N T E R I M O R D E R

Kentucky Utilities Company ("KU") filed its application with the Commission on April 9, 1991, requesting a Certificate of Public Convenience and Necessity ("CCN") and a Certificate of Environmental Compatibility ("CEC") to construct four 75 megawatt combustion turbines ("CTs"). KU proposes to locate the four CTs at its E. W. Brown generating station ("Brown") in Mercer County, Kentucky, with one unit scheduled for completion in 1994 and the three remaining units scheduled for completion in 1995. The only intervenor in this proceeding was the Attorney General's Utility and Rate Intervention Division ("AG").

Informal conferences were held in this proceeding on May 24, 1991, and August 26, 1991, and a formal hearing was held on October 1, 1991. Initial briefs were filed by October 25, 1991, and reply briefs were filed by November 4, 1991.

BACKGROUND

KU proposes to construct four CTs and the related substation and transmission facilities at a total approximate cost of \$143 million. KU intends to initially fuel the units with oil and evaluate the possible future construction of a natural gas transmission line to supply gas to the Brown site. The application states that these four units, plus three more, will need to be installed at the Brown site during the 1994-1998 time period.

On June 17, 1991, pursuant to KRS 278.025, KU filed a statement of environmental compatibility of the proposed site with the Kentucky Natural Resources and Environmental Protection Cabinet ("KNREPC") so that any recommendations or objections to the proposed facilities could be reported to the Commission. KNREPC filed its report and comments with the Commission on October 23, 1991, wherein it recommended that a CEC be issued to KU for this project.

In its prefiled testimony KU indicated that while its application refers to four 75 megawatt units, its investigation of CT vendors showed some vendors build units with nominal ratings of 100 megawatts. KU stated that its intention was to encourage as many bids as possible to obtain the proposal that would best provide the approximate 300 megawatts of additional capacity needed by 1994-1995; therefore, it would not limit the bid request to specific sized units. KU also indicated that, due to the expanded load requirements of two large industrial customers, it would anticipate moving one of the units scheduled for completion in 1995 forward to be completed in 1994.

At the October 1 hearing KU indicated that its recently completed 1991 load forecast projected loads for 1994 and 1995 somewhat greater than those included in its 1990 load forecast, which had been the basis for its application. Based on this new data KU stated its need for new capacity in the 1994-1995 time frame was no longer 300 megawatts but was somewhere between 375 and 400 megawatts.

The AG argues that KU's request cannot be expanded to 400 megawatts without KU amending its application. At the hearing KU specifically declined to amend its application to request authority to construct 375 to 400 megawatts.

Absent an amendment to its application, with the associated changes in costs and other considerations, KU's request to construct 300 megawatts cannot be expanded. The findings and conclusions set forth herein apply only to the request in KU's application to construct 300 megawatts.

PROPOSALS

The proposal before the Commission reflects KU's assumptions and decisions in support of the following propositions: (1) KU has a need for peaking capacity in the 1994-1995 time period; (2) the installation of CTs is the most appropriate way for KU to meet this need; and (3) the CTs should be installed at the Brown site. The Commission notes that KU experienced increasing loads in the late 1980s that accelerated its expected need for new generating capacity from 1997 to 1994. In response to this need in February 1990 KU issued a Request for Proposal ("RFP") for peaking capacity to its neighboring utilities. This RFP resulted in a purchase

agreement with Illinois Power Company under which KU will receive 75 megawatts in 1993 and 125 megawatts in 1994. KU recognized that its existing and anticipated demand-side management ("DSM") programs would not produce reductions in its peak demands large enough to avoid or defer its need for additional capacity in the 1994-1995 time frame. After analyzing the various technologies available for peaking capacity, KU determined that CTs would best meet its needs.

The AG, in his analysis, expresses some reservations about KU's load forecast but concludes that there will be some capacity deficiencies in the mid-1990s.¹ The AG characterizes KU's DSM efforts to date as minimal and contends that this inaction limits KU's current options to only supply-side resources. The AG recommends that KU greatly expand its DSM efforts so that it might avoid or defer some of the capacity additions it anticipates needing in the late 1990s subsequent to the current request. The AG suggests that the Commission should notify KU that no future capacity additions will be considered until "KU has a major DSM program in place and working."

After concluding that KU will have capacity deficiencies in the mid-1990s, the AG opines that supply-side additions are the most appropriate capacity alternative for KU in this time frame.²

¹ Testimony of David H. Kinloch, p. 5. It should be noted, however, that in its initial brief the AG states that the load forecast filed by KU in support of its application should not be relied upon by the Commission.

² Ibid., page 10.

However, the AG opposes granting a CCN or CEC to construct the CTs at the Brown site. The AG argues that KU did not adequately search for sites where natural gas would be available as the primary fuel source but, rather, chose the Brown site more or less by default. The AG maintains that gas would be less expensive, more reliable and produce fewer emissions than oil.

As an alternative to the Brown site proposed by KU, the AG suggested that KU pursue the possibility of locating the CTs in Trapp, Kentucky on a site owned by East Kentucky Power Cooperative, Inc. ("East Kentucky"). According to the AG the Trapp site, which has gas transmission lines crossing the property, is currently being considered by East Kentucky as the location for its own CT additions in the mid-1990s. The AG suggests that inasmuch as KU and East Kentucky are using the same engineering consultant and discussing joint bid requests and a joint parts inventory, they should also consider the best joint site which, in the AG's opinion, would be the Trapp site. The AG recommended that the Commission deny KU's request for a CCN and a CEC until an acceptable site with gas supplies is located.

ANALYSIS OF ALTERNATIVES

The Commission agrees with the AG's assessment of KU's load forecast and recognizes that KU will need additional capacity in the 1994-1995 time frame. We also agree with the conclusion, reached by both KU and the AG, that DSM programs will not produce sufficient reductions in KU's peak demands to avoid or defer the new capacity needed in 1994 and 1995. The critical issue before the Commission is whether KU's proposal offers the best available

alternative for meeting this need. In order to decide that issue we must consider the capacity alternatives available to KU and determine whether those alternatives have been adequately investigated and evaluated by KU.

The alternatives available to KU consist of constructing peaking capacity or purchasing peaking capacity from other sources. In considering the construction alternative it appears that CTs are the most viable peaking technology available to KU at this time. We are not convinced, however, that KU's analysis shows the proposed construction to be its least-cost alternative, nor are we convinced that the Brown site is the best location for construction of CTs.

The record is inconclusive on two major issues: (1) the existence of capacity purchase alternatives available to KU that might permit a delay in the construction of CTs and reduce the present value revenue requirements related to the new capacity; and (2) if such capacity purchase alternatives are not available, the preference for the Brown site rather than the Trapp site. The issue of potential capacity purchases is a significant unknown.

Twenty-two months ago KU sent its RFP to eight utilities with which it is interconnected. The result was the previously cited purchase agreement with Illinois Power Company. KU indicates it considered sending a more recent RFP but did not do so.³ KU opined that those utilities with which it is interconnected

³ Transcript of Evidence ("T.E."), October 1, 1991, page 114.

offered the most economical bulk power available. KU's opinion reflected its assumption that the wheeling costs for power from remote sources would make the price of such power unattractive to KU.

The Commission cannot base its decision on KU's unsupported assumption. By sending its RFP to only its interconnected utilities KU has ignored a vast number of potential power suppliers. In addition, by not sending a more current RFP KU has assumed that no changes have occurred with its eight interconnected utilities. These may be valid assumptions, but the record neither supports nor refutes them. The Commission, based on the record that presently exists, cannot determine whether or not economical purchase alternatives exist.

On the issue of a site for CTs, in the event purchase options do not exist, the record is similarly inconclusive. The evidence shows the projected cost of installing CTs at the Brown site and the estimated cost of installing a gas line to that site. The record also reflects KU's estimates of the costs to develop the Trapp site. However, the record does not reflect the impact of any sharing between KU and East Kentucky of the costs of developing the Trapp site. Although the record indicates that East Kentucky expressed an interest in such an arrangement, KU has had no discussions with East Kentucky on the matter since May 1991.⁴ Recognizing that gas is already available at the Trapp

⁴ T.E., October 1, 1991, pages 80 and 81.

site and East Kentucky's interest in that site, it is incumbent upon KU to investigate the economic and financial implications of such an arrangement. Such an investigation may determine that an arrangement of this type would be detrimental to KU and show that the Brown site is the better alternative. Unfortunately, the present record, devoid of such an investigation, does not permit the Commission to make such a determination.

DECISION

The present record is inconclusive on a number of major issues. As a result the Commission can neither determine to grant nor deny KU's application. While the record supports a Commission finding that KU requires 300 megawatts of peaking capacity in the 1994-1995 time frame, the evidence is inconclusive as to the best method for KU to meet this requirement. Therefore, we will require KU to supplement the record on the issues previously discussed so that a decision on KU's request can be rendered.

KU should, no later than January 6, 1992, supplement the record with the following information:

1. The results of a new RFP for peaking capacity. This RFP should be similar to KU's February 1990 RFP except that the peaking capacity need be available beginning in 1994. The RFP should be sent to all utilities interconnected with KU and all utilities interconnected with those utilities. This will greatly expand the potential number of suppliers while limiting the mark-ups for wheeling charges to those of the utilities interconnected with KU. The results submitted by KU should

include the utilities' written responses and a summary of the proposals, compiled by KU, which ranks the proposals. This ranking should identify and explain KU's basis for accepting, rejecting, or giving further consideration to the different proposals.

2. The results of a joint analysis, to be performed by KU and East Kentucky, of the costs to be born by KU under a cost-sharing arrangement for the development of the Trapp site. This analysis should reflect the projected costs for site development, transmission facilities, substations, switching stations, etc., and the methodology for allocating or sharing these costs. This analysis should also include a comparison of KU's costs for the Brown site and its shared costs for the Trapp site. The comparison should include narrative descriptions of the analyses performed by KU to determine whether Brown or Trapp is the more favorable site.

DEMAND SIDE MANAGEMENT

The Commission agrees that DSM programs will not eliminate KU's need for peaking capacity in the mid-1990s. Such programs require time before they produce significant results and, as reflected in the record, KU is just now in the start-up phase on most of its proposed DSM programs.

The AG criticizes KU's DSM efforts to date as minimal and recommends that the Commission inform KU that no new supply-side capacity beyond that being discussed presently will be certificated until KU has a serious DSM program in place and working. KU objects to the AG's criticism and suggests that

Commission adoption of the AG's recommendation would impose an unreasonably restrictive condition on a regulated utility charged with meeting the power requirements of its customers.

The Commission believes there is a gray area somewhere between the black and white pictures painted by KU and the AG. KU's DSM efforts to date are not minimal compared to other utilities in Kentucky. KU is at present ahead of some utilities and behind some others; however, we are concerned with the rather slow pace at which KU seems to be moving in the three years since it performed its screening of potential DSM programs. The Commission believes that KU, as the state's largest electric utility, should intensify its DSM efforts and take on a progressive leadership role in this area.

The Commission will not restrict itself or KU by adopting the AG's recommendation to impose conditions on KU's future capacity additions. However, we do expect KU to expand its DSM efforts in the future and we expect to closely scrutinize those efforts and their results in future proceedings.

SUMMARY

After consideration of the evidence, and being otherwise sufficiently advised, the Commission finds that:

1. KU has a need for 300 megawatts of peaking capacity in the 1994-1995 time frame.
2. The record is inconclusive as to whether KU's proposal to construct CTs at the Brown site best meets this need or whether other options provide least-cost alternatives to meeting this need.

3. KU should supplement the record in the manner described herein so that the Commission can make findings on the least-cost alternative to meeting KU's need for peaking capacity and render a decision on KU's request for a CCN and CEC.

4. The AG should have seven days to file comments, if any, on the evidence filed by KU in response to this Order.

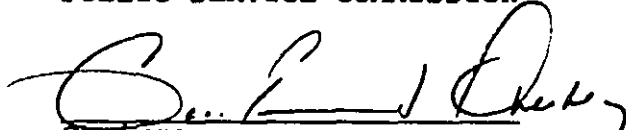
IT IS THEREFORE ORDERED that:

1. KU shall file the supplemental information described in the findings above no later than January 6, 1992.

2. The AG shall file comments, if any, on the supplemental information no later than January 13, 1992.

Done at Frankfort, Kentucky, this 6th day of December, 1991.

PUBLIC SERVICE COMMISSION


Chairman


Vice Chairman

Commissioner

ATTEST:


Executive Director